

WE CLAIM:

1. A lateral flow immunoassay device comprising:
a housing including means for holding a test sample collector with a test sample contained within said collector; an elongated holder member securing at least one immunoassay test strip therein; a first chamber containing a first, pre-treatment reagent; a second chamber containing a second reagent; means for contacting the test sample with said pre-treatment reagent and allowing said test sample to mix with said first reagent and to form a mixture; means for introducing said second reagent to said mixture and allowing said mixture to react with said second reagent for a period of time; and means for allowing the mixture and second reagent combination to contact said at least one immunoassay test strip.
2. The lateral flow immunoassay device of Claim 1 wherein said pre-treatment reagent includes a buffer solution.
3. The lateral flow immunoassay device of Claim 1 wherein said second reagent is a binder.
4. The lateral flow immunoassay device of Claim 3 wherein said binder is a colloidal gold-antibody complex.
5. The lateral flow immunoassay device of Claim 1 wherein said second reagent is an antigen.
6. The lateral flow immunoassay device of Claim 1 wherein said pre-treatment reagent is contained within a rupturable enclosure.
7. The lateral flow immunoassay device of Claim 6 wherein said contacting means includes a piercing member that ruptures said enclosure and releases

said first reagent therefrom, the test sample being in fluid communication with said first reagent when the test sample is released from the sample collector.

8. The lateral flow immunoassay device of Claim 1 wherein said introducing means includes apertures in communication with said second chamber through which said mixture flows and contacts said second reagent.

9. The lateral flow immunoassay device of Claim 1 wherein said means for allowing said mixture to contact said at least one immunoassay test strip includes said holder member being isolated so that said at least one test strip does not contact said mixture until said mixture has reacted with said second reagent.

10. The lateral flow immunoassay device of Claim 1 wherein said holding means includes an elongated slot.

11. The lateral flow immunoassay device of Claim 6 wherein said contacting means includes a button and a piercing member, said button activating said piercing member to rupture said enclosure and release said first reagent contained therein, the test sample being in fluid communication with said first reagent when the test sample is released from the sample collector.

12. The lateral flow immunoassay device of Claim 1 wherein said housing is generally L-shaped with a vertical leg having a top end and a bottom end and a horizontal leg extending outwardly from said bottom of said vertical leg.

13. The lateral flow immunoassay device of Claim 12 wherein said test strip is located within said vertical leg.

14. A lateral flow immunoassay device comprising:

a housing including means for holding a test sample collector with a test sample contained therein; an elongated holder member for securing at least one immunoassay test strip therein; a first chamber containing a first reagent; a second chamber containing a second reagent; and means for permitting said test sample, said test strip, said first reagent, and said second reagent to be in fluid communication.

15. The lateral flow immunoassay device of Claim 14 wherein said first reagent is contained in a rupturable enclosure.

16. The lateral flow immunoassay device of Claim 14 wherein said first reagent includes a buffer solution.

17. The lateral flow immunoassay device of Claim 14 wherein said second reagent is a binder.

18. The lateral flow immunoassay device of Claim 17 wherein said binder is a colloidal gold-antibody complex.

19. The lateral flow immunoassay device of Claim 14 wherein said second reagent is an antigen.

20. The lateral flow immunoassay device of Claim 15 further including a piercing member that ruptures said enclosure and releases said first reagent therefrom, the test sample being in fluid communication with said first reagent when the test sample is released from the sample collector.

21. The lateral flow immunoassay device of Claim 14 further including apertures in communication with said second chamber through which said first reagent flows and contacts said second reagent.

22. The lateral flow immunoassay device of Claim 14 wherein said holding means includes an elongated slot.

23. The lateral flow immunoassay device of Claim 15 further including a button and a piercing member, said button activating said piercing member to rupture said enclosure and to release said first reagent contained therein, the test sample being in fluid communication with said first reagent when the test sample is released from the sample collector.

24. The lateral flow immunoassay device of Claim 14 wherein said housing is generally L-shaped with a vertical leg having a top end and a bottom end and a horizontal leg extending outwardly from said bottom of said vertical leg.

25. The lateral flow immunoassay device of Claim 24 wherein said test strip is located within said vertical leg.